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# A new species of *Pseudagrion* SELYS from Australia (Odonata: Coenagrionidae)

# G. THEISCHINGER

A b s t r a c t: *Pseudagrion ingrid* sp. n. (3 holotype: Eubenangee Swamp near Babinda, Queensland, Australia) is described, illustrated and compared with the other species of *Pseudagrion* SELYS known from Australia.

Key words: Pseudagrion, new species, Australia.

#### Introduction

WATSON et al. (1991) listed five species of *Pseudagrion* SELYS from Australia. They are *P. aureofrons* TILLYARD, *P. cingillum* (BRAUER), *P. ignifer* TILLYARD, *P. jedda* WATSON & THEISCHINGER and *P. microcephalum* (RAMBUR). THEISCHINGER (1997) added two more taxa, *P. lucifer* and *P. ignifer aureum*.

An undescribed species very close to *P. micropcephalum* in size and colouration has now been identified from material collected during the 1997 Müller/Theischinger family holiday in tropical Queensland. This species the male of which is unusually vivid blue in life, is described below. The introduction of the new species gives the opportunity to present taxonomically relevant morphological details of all known Australian species of *Pseudagrion*.

# Description

#### Pseudagrion ingrid spec. nov. (Figs 1-6)

Primary type: Holotype 3: Queensland, Eubenangee Swamp, near Babinda, Queensland, Australia, 5.4.1997, G. Theischinger and L. Müller. Additional material: 1 paratype o, same data as holotype. Holotype and paratype in ANIC (Australian National Insect Collection, CSIRO, Canberra).

Name: after my grand-daughter Ingrid.

A medium sized damselfly, black, the male with vivid blue, the female with bluish grey to greyish blue markings.

Male (Figs 1-5)

D i m e n s i o n s: Hindwing 20.7 mm; abdomen (including appendages) 30.5 mm.

H e a d: Labium pale greyish- to brownish yellow; labrum, clypeus, gena, outer face of mandible, anterior portion of frons, scape, narrow occipital bar and a large patch on postocular region bright blue, a central and a lateral black patch each side, between labrum and clypeus, a wide subtriangular greyish black patch between clypeus and frons, a black spot in front of median ocellus and a subrectangular black patch each side from base of antenna to black top of frons; apex of mandible, vertex, pedicel and flagellum black; postgena black, blue along posterior eye margin.

Prothorax: Anterior lobe of pronotum largely dull blue, median lobe black with bright blue patch each side, posterior lobe blue; propleura blue; coxa brownish yellow; trochanter greyish yellow and blue; femur greyish yellow to blue on inner and black on outer face; tibia blue on outer and black on inner face except for completely black apex; tarsus and claws brownish black.

S y n t h o r a x: A triangular blue patch between ridges of collar in front of dorsal carina; mesanepisternum black with wide blue patch over 2/3 length and blue spot on top of it next to black antealar ridge and sinus; mesepimeron blue, narrowly black along more than ventral ½ and subdorsal 1/8 of mesopleural suture, short black line along dorsal 1/6 of intersegmental suture and black patch just ventral to this line; metanepisternum, metepimeron and metakatepisternum blue with elongate black patch along metapleural suture close to subalar ridge which is black and blue; mesokatepisternum, metakatepisternum and poststernum blue; legs much as in prothorax; basal sclerites of wings vivid blue; terga largely paler blue.

W i n g s: Membrane hyaline; veins black; pterostigma brownish black, short and square; postnodals 12-13/12.

A b d o m e n: Tergum 1 largely blue, brownish grey mediobasally; tergum 2 black with large blue basal mid-dorsal patch, transverse blue subapical bar and brown streak along ventral edge; terga 3-7 black, tergum 8 blue, all of them brown along ventral edge; tergum 9 blue with small black laterobasal patch; sterna brownish black; segment 10 largely blue, brown to black along posterior margin, laterobasally and ventrally; anal appendages brown to black, superiors narrowly cleft near tip with apices rounded, inferiors about 3/4 length of superiors and with wide inner angle.

Female (Fig. 6)

D i m e n s i o n s: Hindwing 25.2 mm; abdomen (including appendages) 34.0 mm.

H e a d: Much as in male, but pale bluish grey instead of blue; postclypeus completely black.

Prothorax: Much as in male, but pale bluish-to brownish grey instead of blue; finger-like processes of posterior lobe of pronotum very long and thin, appressed to median lobe, bluish grey.

S y n t h o r a x: Much as in male, but generally pale bluish grey, bluish brown or greyish blue instead of blue; two pale patches on mesanepisternum narrowly connected; black lateral patches along sutures slightly reduced in size and narrowly surrounded by brown; a brown central spot each side on antealar sinus; basal sclerites of wings largely dark brownish grey or black.

W i n g s: Much as in male; postnodals 13-15/12-13.

A b d o m e n: Much as in male; tergum 2 without blue basal patch; terga 8 and 9 largely

dull blue; segment 10 dull blue dorsally and laterally, brownish yellow ventrally; sternum 8 yellowish brown with black midline; valves of ovipositor yellowish brown, ovipositor and styles blackish brown.

## Affinities and Discussion

Pseudagrion ingrid sp. n. (Figs 1-6) is closest to P. jedda WATSON & THEISCHINGER (Figs 7-10) and possibly to P. aureofrons TILLYARD (Figs 15-17) in the structure of the male anal appendages. Its colouration, however, comes much closer to that of P. microcephalum (RAMBUR) (Figs 11-14). The dark pigmentation on abdominal terga 3-5 of the female appears somehow intermediate between P. ignifer (Figs 21-26), P. jedda and P. lucifer (Figs 27-30) on one side and P. aureofrons, P. cingillum (Figs 18-20) and P. microcephalum on the other. Apart from structural uniqueness in male anal appendages and female prothorax, P. ingrid can readily be distinguished from all other known Australian Pseudagrion species by the lack of conspicuous black mid-dorsal markings on abdominal segments 8-10 in both sexes.

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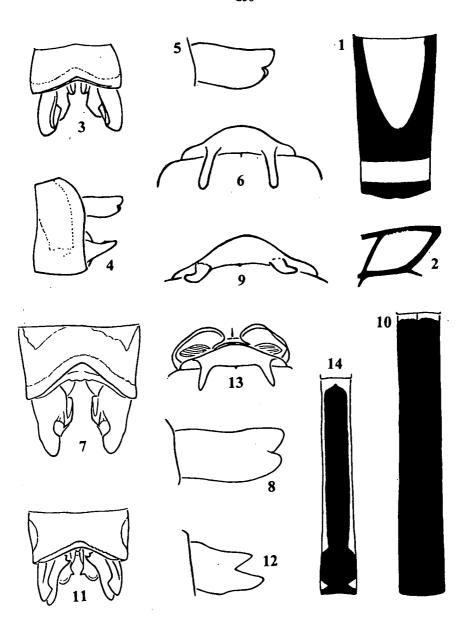
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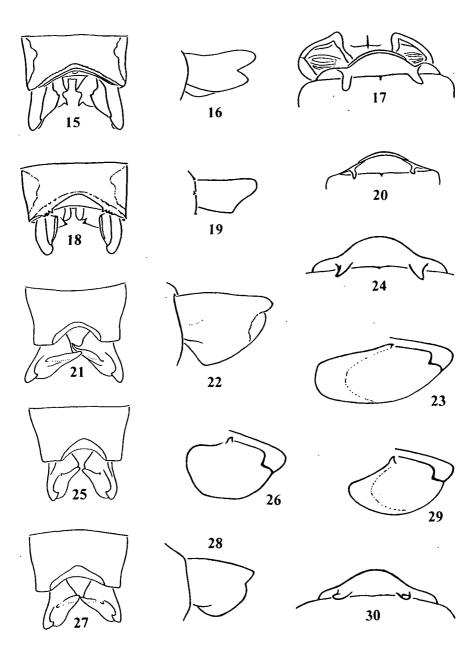
Address of the author:

Gunther THEISCHINGER, 2A Hammersley Road,

Grays Point, N.S.W., Australia 2232



Figs 1-6. Pseudagrion ingrid sp. n.: 1-5 — male: 1 — abdominal segment, dorsal aspect; 2 — pterostigma; 3, 4 — anal appendages: 3 - dorsal aspect; 4 — lateral aspect; 5 — left superior anal appendage, lateral aspect; 6 - female, posterior lobe of pronotum and processes, frontal aspect. Figs 7-14. Pseudagrion spp.: 7-10 — P. jedda WATSON & THEISCHINGER; 11-14 — P. microcephalum (RAMBUR); 7, 11 — male, anal appendages, dorsal aspect; 8, 12 — male, left superior anal appendage, lateral aspect; 9, 13 — female, posterior lobe of pronotum and processes (13 including adjacent portion of synthorax), frontal aspect; 10, 14 — female, tergum 4.



Figs 15-30. Pseudagrion spp.: 15-17 – P. aureofrons TILLYARD; 18-20 – P. cingillum (BRAUER); 21-24 – P. ignifer ignifer TILLYARD; 25, 26 – P. ignifer aureum THEISCHINGER; 27-30 – P. lucifer THEISCHINGER; 15, 18, 21, 25, 27 – male, anal appendages, dorsal aspect; 16, 19, 22, 28 – male, left superior anal appendage, lateral aspect; 17, 20, 24, 30 – female, posterior lobe of pronotum and processes (17 including adjacent portion of synthorax), frontal aspect; 23, 26, 29 – male, right Figs superior anal appendage, caudal aspect.